January 25, 1996

Mr. Leon R. Eliason
Chief Nuclear Officer & President-
Nuclear Business Unit
Public Service Electric & Gas
Company
Post Office Box 236
Hancocks Bridge, NJ 08038

SUBJECT: HOPE CREEK GENERATING STATION (TAC NO. M94341)

Dear Mr. Eliason:

The Commission has issued the enclosed Amendment No. 90 to Facility Operating License No. NPF-57 for the Hope Creek Generating Station. This amendment consists of changes to the Technical Specifications (TSs) in response to your application dated December 28, 1995.

This amendment changes Hope Creek Generating Station TS 1.4, "Channel Calibration," to define actions required for channel calibration of instrument channels containing resistance temperature detector or thermocouple sensors.

A copy of our safety evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,
/S/
David H. Jaffe, Senior Project Manager
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-354

Enclosures: 1. Amendment No. 90 to License No. NPF-57
2. Safety Evaluation

cc w/encls: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

January 25, 1996

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

PUBLIC SERVICE ELECTRIC & GAS COMPANY

ATLANTIC CITY ELECTRIC COMPANY

DOCKET NO. 50-354

HOPE CREEK GENERATING STATION

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 90
License No. NPF-57

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:

   A. The application for amendment filed by the Public Service Electric & Gas Company (PSE&G) dated December 28, 1995, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-57 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 90 , and the Environmental Protection Plan contained in Appendix B, are hereby incorporated into the license. PSE&G shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. The license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

John F. Stolz, Director
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: January 25, 1996

ATTACHMENT TO LICENSE AMENDMENT NO. 90

FACILITY OPERATING LICENSE NO. NPF-57

DOCKET NO. 50-354

Replace the following page of the Appendix "A" Technical Specifications with the attached page. The revised page is identified by Amendment number and contains vertical lines indicating the area of change.

Remove	Insert
1-1	1-1

The following terms are defined so that uniform interpretation of these specifications may be achieved. The defined terms appear in capitalized type and shall be applicable throughout these Technical Specifications.

ACTION

1.1 ACTION shall be that part of a Specification which prescribes remedial measures required under designated conditions.

AVERAGE PLANAR EXPOSURE

1.2 The AVERAGE PLANAR EXPOSURE shall be applicable to a specific planar height and is equal to the sum of the exposure of all the fuel rods in the specified bundle at the specified height divided by the number of fuel rods in the fuel bundle.

AVERAGE PLANAR LINEAR HEAT GENERATION RATE

1.3 The AVERAGE PLANAR LINEAR HEAT GENERATION RATE (APLHGR) shall be applicable to a specific planar height and is equal to the sum of the LINEAR HEAT GENERATION RATES for all the fuel rods in the specified bundle at the specified height divided by the number of fuel rods in the fuel bundle.

CHANNEL CALIBRATION

1.4 A CHANNEL CALIBRATION shall be the adjustment, as necessary, of the channel output such that it responds within the necessary range and accuracy to known values of the parameter that the channel monitors. The CHANNEL CALIBRATION shall encompass the entire channel, including the required sensor, alarm, display, and trip functions, and shall include the CHANNEL FUNCTIONAL TEST. Calibration of instrument channels with resistance temperature detector (RTD) or thermocouple sensors may consist of an inplace qualitative assessment of sensor behavior and normal calibration of the remaining adjustable devices in the channel. The CHANNEL CALIBRATION may be performed by means of any series of sequential, overlapping, or total channel steps so that the entire channel is calibrated.

CHANNEL CHECK

1.5 A CHANNEL CHECK shall be the qualitative assessment of channel behavior during operation by observation. This determination shall include, where possible, comparison of the channel indication and/or status with other indications and/or status derived from independent instrument channels measuring the same parameter.

CHANNEL FUNCTIONAL TEST

1.6 A CHANNEL FUNCTIONAL TEST shall be:

a. Analog channels - the injection of a simulated signal into the channel as close to the sensor as practicable to verify OPERABILITY including alarm and/or trip functions and channel failure trips.

b. Bistable channels - the injection of a simulated signal into the sensor to verify OPERABILITY including alarm and/or trip functions.

The CHANNEL FUNCTIONAL TEST may be performed by any series of sequential, overlapping or total channel steps such that the entire channel is tested.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 90 TO FACILITY OPERATING LICENSE NO. NPF-57

PUBLIC SERVICE ELECTRIC & GAS COMPANY

ATLANTIC CITY ELECTRIC COMPANY

HOPE CREEK GENERATING STATION

DOCKET NO. 50-354

1.0 INTRODUCTION

By letter dated December 28, 1995, the Public Service Electric & Gas Company (the licensee) submitted a request for changes to the Hope Creek Generating Station, Technical Specification (TS). The request would change Hope Creek Generating Station (HCGS) Technical Specification 1.4, "Channel Calibration," to define actions required for channel calibration of instrument channels containing resistance temperature detector (RTD) or thermocouple (T/C) sensors.

2.0 DISCUSSION

Instrument channels are subject to routine degradation in their ability to sense their associated process variable. This expected degradation process, accounted for in the safety analyses, is referred to as "drift." In order to correct for instrument drift, instrument channels, including sensors, are routinely subjected to a process defined as "channel calibration." At the present time, HCGS TS 1.4 requires that:

> A CHANNEL CALIBRATION shall be the adjustment, as necessary, of the channel output such that it responds within the necessary range and accuracy to known values of the parameter which the channel monitors. The CHANNEL CALIBRATION shall encompass the entire channel including the sensor and alarm, and/or trip functions, and shall include the CHANNEL FUNCTIONAL TEST. The CHANNEL CALIBRATION may be performed by any series of sequential, overlapping, or total channel steps such that the entire channel is calibrated.

The above definition of channel calibration does not reflect the presence of instrument channels with RTD or T/C sensors in that these sensors are not readily adjusted without removing the sensors. To correct this problem, the licensee has proposed the following TS 1.4:

> A CHANNEL CALIBRATION shall be the adjustment, as necessary, of the channel output such that it responds within the necessary range and accuracy to known values of the parameter that the channel monitors. The CHANNEL CALIBRATION shall encompass the entire channel, including the

required sensor, alarm, display, and trip functions, and shall include the CHANNEL FUNCTIONAL TEST. Calibration of instrument channels with resistance temperature detector (RTD) or thermocouple sensors may consist of an inplace qualitative assessment of sensor behavior and normal calibration of the remaining adjustable devices in the channel. The CHANNEL CALIBRATION may be performed by means of any series of sequential, overlapping, or total channel steps so that the entire channel is calibrated.

2.0 EVALUATION

The NRC staff recognizes that channel calibration of instrument channels containing RTD or T/C sensors represent a situation not reflected in the current HCGS TS 1.4 in that these sensors cannot be adjusted in place and removal of the sensors is not a realistic option. Accordingly, the current version of the Standard Technical Specifications (STS), NUREG 1433 "Standard Technical Specifications General Electric Plants, BWR/4," Revision 1, contains wording that is identical to the licensee's proposed change to HCGS TS 1.4.

The NRC staff has determined that the licensee's proposed change to TS 1.4 will not result in degradation of performance of instrument channels in that the licensee will continue to observe industry and NRC staff-accepted practices for calibration of instrument channels containing RTD or T/C sensors. For example, IEEE Standard 338-1977, "IEEE Standard Criteria for the Periodic Testing of Nuclear Power Generating Station Safety Systems," provides the following guidance: "When complete checks, including those of the sensor, are not practicable, an analog or digital input for partial testing should be introduced and varied as appropriate." It is the NRC staff's understanding, however, that if any RTD or T/C fails to meet the test-criteria for the "inplace qualitative test", and the licensee replaces or modifies the failed RTD or T/C with a new and exactly similar instrument, the new instrument would be calibrated using regular industry standard methods.

Based upon the above, the NRC staff finds the proposed change to TS 1.4, which defines actions required for channel calibration of instrument channels containing RTD or T/C sensors, to be acceptable.

3.0 EXIGENT CIRCUMSTANCES

With regard to exigent circumstances, the licensee states in their December 28, 1995 application for license amendment that, "Hope Creek is currently in Operational Condition 5 and the affected instrument channels are not required to be operable. However, the outage schedule indicates that we will be going to Operational Condition 3 on February 2, 1996. TS 3.0.4 prohibits entry into an operational condition when the Limiting Conditions for Operation are not met. PSE&G needs 3 days to implement the change. Therefore, PSE&G requests that this amendment request be approved no later than January 31, 1996. Since this schedule does not permit the NRC to publish this in the Federal Register with allowance for a 30 day public comment period, PSE&G requests that this be handled as an exigent request."

The NRC staff has reviewed the licensee's application for license amendment and finds (1) that exigent circumstances exist, as provided in 10 CFR 50.91(a)(6), in that the licensee and the Commission must act quickly and that time does not permit the Commission to publish a Federal Register notice allowing 30 days for prior public comment, and (2) that the licensee has not failed to use its best efforts to make a timely application and avoid creating the exigent circumstance. The Commission noticed the licensee's December 28, 1995 application for license amendment in the Federal Register on January 5, 1996 (61 FR 420), at which time the Commission made a proposed finding that the proposed amendment involved no significant hazards consideration and there has been no public comment in response to the notice.

4.0 FINAL NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The Commissions's regulations in 10 CFR 50.92 provide that the Commission may make a final determination that a license amendment involves no significant hazards considerations if operation of the facility in accordance with the amendment:

1. **Will not involve a significant increase in the probability or consequences of an accident previously evaluated.**

   Since no physical change is being made to the instrumentation channels, or to any system or component that interfaces with the instrumentation channels, there is no change in the probability of any accident analyzed in the UFSAR [Updated Final Safety Analysis Report].

   There is no change in the consequences of an accident. The proposed change continues to ensure the surveillance requirements meet the licensing basis. Also, the testing performed will continue to demonstrate the capability of the affected instrumentation channels to respond to changes in the state of the monitored parameters in a manner consistent with assumptions in the accident analysis.

   Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. **Will not create the possibility of a new or different kind of accident from any previously evaluated.**

   The proposed change does not result in any design or physical configuration changes to the instrumentation channels. Operation incorporating the proposed change will not impair the

instrumentation channels from performing as provided in the design basis. By aligning the TS to be consistent with the current calibration practice we will prevent the possibility for unnecessary removal and potential damage of the temperature detectors (for sensor calibration). The instrument channels will continue to function as assumed in the accident analyses. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. **Will not involve a significant reduction in a margin of safety.**

Since the proposed change does not involve the addition or modification of plant equipment, is consistent with the intent of the existing Technical Specifications, is consistent with the current industry practices as outlined in NUREG 1433,"Standard Technical Specifications General Electric Plants, BWR/4" Revision 1 and is consistent with the design basis of the Instrumentation Systems and the accident analysis, no action will occur that will involve a significant reduction in a margin of safety.

Based on the above, the Commission has made a final determination that the proposed amendment involves no significant hazards consideration.

5.0 STATE CONSULTATION

In accordance with the Commission's regulations, the New Jersey State Official was notified of the proposed issuance of the amendment. The State official had no comments.

6.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluent that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (60 FR 420). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

7.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: D. H. Jaffe

Date: January 25, 1996